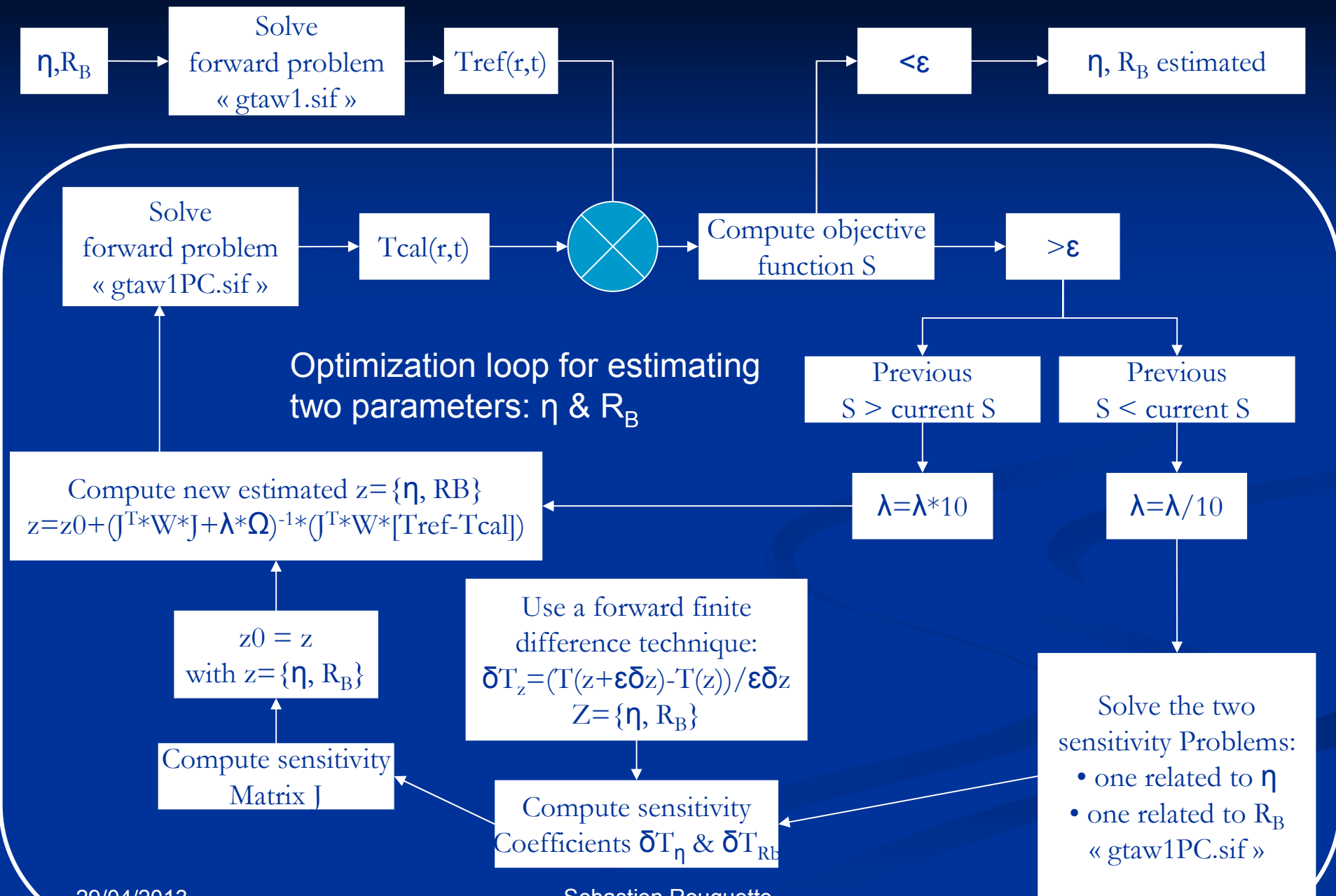


Flow chart of the python file: « InvHeatTransProb1.py »



Some key words/points:

Requires: python v2.7.3 + numpy v1.7.0 + scipy v0.12.0b1 + matplotlib v1.2.0

Elmer 7.0: windows .exe 32 bits rev6064

Meshgrid: Gmsh 2.6.1

Remark: Reference Temperature are normally measured temperatures from the investigated process.

Some references:

You will find more details about this method from:

- **(i recommend because not too much mathematics)** M. N. Necati and H. R. Orlande. Inverse heat transfer, fundamentals and applications. Taylor and Francis, New York (2000).
- S. Rouquette, J. Guo, P. Le Masson. Estimation of the parameters of a Gaussian heat source by the Levenberg–Marquardt method: Application to the electron beam welding. International Journal of Thermal Sciences 46 (2007) 128–138.